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Gender differences among PWID with regards to HIV transmission risk in St. Petersburg, Russia

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Aims: The HIV epidemic in Russia is driven by injection drug use. Among people who inject drugs (PWID) in global settings, women usually have higher HIV prevalence than men. Using data from a cohort of HIV-infected Russian PWID we examined whether gender is associated with HIV transmission risk: drug and sexual risk behaviors.

Methods: This study involved secondary analysis of data from Russia ARCH, a longitudinal cohort of HIV-infected persons in St. Petersburg, Russia. Current analyses were restricted to PWID (injected prior to HIV diagnosis or in the past 30 days). The main independent variable was gender. The primary outcomes were sharing of injecting equipment and unprotected sex. Secondary outcomes were alcohol use prior to sharing injecting equipment and unprotected sex; and simultaneous reporting of drug and sex risk behaviors. Analyses used logistic regression models.

Results: The mean age of the sample ($N = 294$) was 33 (SD ± 5) years, 22% had ≤9th grade education, 26% were female and the median CD4 cell count was 470 (IQR: 304, 698). Sharing drug equipment in past 30 days was reported by 18% of participants and 9% used alcohol prior to sharing; 48% reported unprotected sex in past 90 days and 56% used alcohol prior to sex; 11% reported recent simultaneous drug equipment sharing and unprotected sex. Women had significantly higher odds of reporting unprotected sex (AOR = 3.04, 95% CI: 1.60–5.81, $p = 0.001$), but not other risk behaviors.

Conclusions: Among HIV-infected Russian PWID, women had significantly higher odds of unprotected sex in the past 90 days. Better understanding of HIV risk behaviors among women and men who inject drugs can support more gender-tailored HIV prevention interventions.

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Intravenous and smoked methamphetamine produce different subjective and physiological effects in women

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Aims: Methamphetamine (meth) is unique since women are as likely to use meth as men are. But few studies have compared the route of meth administration and the perceived subjective effects of the drug. This study was designed to determine potential differences in the subjective effects of intravenously administered (IV) meth when compared to other routes of administration in women using unstructured interviews.

Methods: After obtaining IRB approval potential subjects were recruited. A consent letter was provided for potential subjects to read, but they were not required to sign it so that confidentiality could be maintained. The inclusion criteria included being female, over the age of 18, and with meth as their primary drug of choice. When these unstructured interviews were completed, the interview notes were searched for the emergence of common themes regarding differences between IV and smoked or snorted meth using grounded theory, whereby key points were extracted from information contained in the interview notes.

Results: Fifty-six women participated in the 2.5-year study. The mean age of the subjects was 34.5 (±10.2; range: 18 to 56). Twenty-three women said that they would experience "vapors" following an IV injection of meth, resulting in an immediate "cough" or a "taste" of the drug. Of the 51 women who used meth IV, 45 (88%) reported the perception of an immediate sexual feeling indistinguishable from an orgasm following an injection of sufficient purity. None of the participants reported a similar response when they smoked or snorted the drug. The subjects also reported several additional subjective and physiological responses only experienced with IV meth.

Conclusions: The major finding of this study is that the IV administration of meth produces subjective (and physiological) responses that are readily perceived as different from the responses experienced when meth is smoked or snorted. These differences should be taken into account when treating female IV methamphetamine users. Potential mechanisms underlying these effects will be discussed.

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Associations between non-traditional tobacco product use and ADHD symptoms in adolescents

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Aims: While cigarette smoking is declining among U.S. adolescents, there has been a dramatic increase in the initiation and continued use of new and non-traditional tobacco products such as electronic cigarettes (e-cigarettes) and hookah (water pipe). Previous research has shown that attention-deficit hyperactivity disorder (ADHD) is an important risk factor for combustible cigarette use among adolescents, yet there is little data assessing possible associations between ADHD symptoms and non-traditional tobacco products.

Methods: High school students in the Los Angeles area ($N = 3383$) completed longitudinal surveys assessing lifetime and current use of e-cigarettes and hookah and ADHD symptoms at 2 timepoints. Logistic regression in repeated-measures, generalized-linear mixed models assessed relations between standardized scores of ADHD symptoms and measures of tobacco product use after controlling for pertinent demographic, interpersonal and substance-related covariates.

Results: Among teens who never used e-cigarettes, the odds of reporting e-cigarette initiation increased by 23% with each 1 *SD* increase in ADHD score (odds ratio [OR], 1.23 [95% CI, 1.0–1.5];